

Appendix 1

--ABSTRACT OF THE DISCLOSURE

Method for the production and processing of alloyed casting material for the working area of indefinite chill rolls, containing the elements carbon, silicon, manganese, chromium, nickel, molybdenum, vanadium, and if applicable additional elements of group 5 of the periodic system, aluminum, and the remainder iron, accompanying elements, and impurities related to the manufacturing process, characterized in that a melt is produced that has a chemical composition in wt-% of 2.0 to 3.5 C; 1.0 to 2.0 Si; 0.5 to 2.0 Mn; 1.0 to 3.0 Cr; 3.5 to 4.9 Ni; 0.2 to 2.9 Mo; with the remainder iron and impurities, and more than 0.5 % vanadium by weight in amounts up to 5.9 wt-% is added, is dissolved therein, and the composition of the melt is set using alloying methods by fixing the concentrations of carbon and silicon in the presence of nickel and the effective total of the carbide forming elements in such a manner that, at its solidification, a microstructure is formed which exhibits 1.0 to 3.0 vol-% of graphite, with the guideline that more than 20 but less than 100 graphite particles are present per mm² of observed surface in a metallographic section and the remainder is composed primarily of martensite, 8 to 35 vol-% of eutectic carbides, and at least 1 vol-% of finely distributed vanadium carbides. Subsequently, the melt is cast in a form, preferably a centrifugal casting mold, and is allowed to solidify into a body, preferably a working body of a roll, and optionally, the cast body is further processed, for example, into